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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/474,539	12/29/1999	BALWINDER S. SAMRA	17207-00003	2363

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EXAMINER

BOYCE, ANDRE D

ART UNIT	PAPER NUMBER
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3623

DATE MAILED: 01/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/474,539

Applicant(s)

SAMRA ET AL.

Examiner

Andre Boyce

Art Unit

3623

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 October 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9, 11 and 13-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9, 11 and 13-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. This Final office action is in response to Applicant's amendment filed October 28, 2004. Claims 1 and 11 have been amended. Claims 1-9, 11, and 13-26 are pending.
2. The previously pending rejections to claims 1-9, 11, and 13-26 are rejected under 35 U.S.C. 112, second paragraph have been withdrawn.
3. Applicant's arguments filed October 28, 2004 have been fully considered but they are not persuasive.

Claim Rejections - 35 USC § 103

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
5. Claims 1-9, 11, 13-21 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee et al (US 2002/0072951), in view of Lazarus et al (USPN 6,430,539), in further view of Thearling (USPN 6,240,411).

As per claim 1, Lee et al disclose a method of analyzing the success of a marketing campaign by using a targeting engine, campaign results and an original campaign database (campaign analysis including determining the effectiveness of a campaign, see ¶ 0029 and 0033), comprising

embedding within the targeting engine a plurality of analytical models (marketing analyses models, see ¶ 0030) including marketing (customer/product analyses, see ¶ 0031 and 0032) and risk models (targeting most valuable customers, i.e., ones of low risk and high return, see ¶ 0039);

deriving a list of user defined dimensions (users are able to analyze and present data in a variety of ways based upon which pre-built marketing analyses are used, see ¶ 0029) for the customers included in the target group, the user defined dimensions include marketing defined dimensions (customer/product analysis) and risk defined dimensions (customer profitability and value), and

profiling results of the marketing campaign against the marketing defined dimensions and the risk defined dimensions (campaign analysis, see ¶ 0033).

Lee does not explicitly disclose using the targeting engine to determine a sequential order for combining models and combining the models embedded within the targeting engine in the determined sequential order to define an initial customer group including a list of customers satisfying each of the combined models and rank ordered by projected profitability wherein projected profitability is based on a probable response by a customer to the marketing campaign, attrition of the customer, and risk associated with the customer, the list includes a high profit end, a moderate profit section, and a low profit end, the high profit end including customers having a highest projected profitability, the low profit end including customers having a lowest projected profitability, the moderate profit section including a profitability baseline, wherein the determined sequential order maximizes a number of

customers included between the high profit end and the profitability baseline, the target group includes the customers included between the high profit end of the list and the profitability baseline, the profitability baseline defines marginal returns for a customer equal to zero.

Lazarus et al disclose a creating plurality of predictive models based upon each merchant segment (column 4, lines 11-16). In addition, Lazarus et al discloses each predictive model predicting spending in a merchant cluster over a predicted time interval, based on historic spending (column 4, lines 16-20). Further, the predictive models are specific to merchant clusters over a specific segment of the market that appears in the underlying spending data (column 4, lines 30-33). As a result, Lazarus et al discloses combining predictive models in order to determine merchant segments, wherein the models are in a sequential order based upon time interval.

Lazarus et al also discloses consumer accounts ranked by predicted spending, based upon financial profiling (i.e., marketing campaign), wherein the ranked accounts are divided into bins. The highest ranked consumers are in one bin, whereas the lowest ranked consumers would be bin N. The lift for the bin is the average actual spending by accounts in the bin divided by a baseline spending value, wherein the cumulative lift for bin N is 1. The cumulative lift is used to identify the group of accounts which are to be targeted (column 34, lines 65-67 and column 35, lines 1-31).

Neither Lee et al nor Lazarus et al explicitly disclose assigning a score to the results of the marketing campaign based on the marketing defined dimensions and

risk defined dimensions. Thearling discloses the campaign manager automatically selecting the order of the models for analysis (see figure 11 and column 13, lines 38-41), and the scoring the model used to analyze the campaign, thereby scoring the campaign (i.e., likelihood a customer will provide repeat business, see column 9, lines 48-52).

Lee et al, Lazarus et al, and Thearling are concerned with effective campaign management, consumer analysis and segmentation, therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to include combining the models via ordered customer lists, assigning a score to the campaign analysis in Lee et al, as seen in Lazarus, Thearling, respectfully, thus allowing analysts to determine the success of the marketing campaign via comparison to other campaign scores and/or a scoring baseline, thereby increasing the analytical robustness of the method.

As per claim 2, Lee et al disclose comparing accounts targeted by the marketing campaign against those accounts not targeted (segmented targets, see ¶ 0078).

As per claim 3, Lee et al disclose selecting the differences between targeted and non-targeted accounts (targets based on pre-configured queries, see ¶ 0078).

As per claim 4, Lee et al disclose ensuring that the marketing campaign is reaching a targeted population base (tailor campaigns to better target the most valuable customer, see ¶ 0039).

As per claim 5, Lee et al disclose capturing graphically, clusters of data built using statistical procedures (chart, see ¶ 0053).

As per claim 6, Lee et al disclose using the user defined dimensions and the campaign results to construct a gains chart (see ¶ 0053). According to Applicant's specification, gain charts simply track the performance of the models used over marketing campaigns. The chart in Lee et al provides a visual representation of the data (i.e., analyses of the campaigns).

As per claim 7, Lee et al do not explicitly disclose rank ordering user defined segments. Thearling discloses selecting the order of models for selection (see column 13, lines 35-41). Both Lee et al and Thearling are concerned with effective campaign management and analysis, therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to include rank ordering the segments in the Lee et al, as seen in Thearling, thus allowing the user to chose segments more likely to produce the desired campaign response, thereby increasing the accuracy of the Lee et al method.

As per claims 8 and 9, Lee et al do not explicitly disclose showing where the model works best, and where the model performance needs to be addressed. Thearling discloses allowing a user to specify a model to use in campaign analysis (i.e., where the model works best, see column 10, lines 20-25) and evaluation of model compute time (i.e., model performance, see column 11, lines 26-32). Both Lee et al and Thearling are concerned with effective campaign management and analysis, therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to include model performance analysis in Lee et

al, as seen in Thearling, thereby effectively determining the robustness of a particular analysis.

As per claim 21, Lee et al disclose comparing the results of the marketing campaign against the marketing defined dimensions and the risk defined dimensions, and using the targeting engine to generate gains charts based on the comparison (see ¶ 0053). According to Applicant's specification, gain charts simply track the performance of the models used over marketing campaigns. The chart in Lee et al provides a visual representation of the data (i.e., analyses of the campaigns).

Claims 11, 13-20, and 24 are rejected based upon the rejections of claims 1-9, and 21 respectively, since they are the system claims corresponding to the method claims.

6. Claims 22, 23, 25, and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee et al (US 2002/0072951), in view of Thearling (USPN 6,240,411), as applied to claims 1 and 11 above.

As per claims 22 and 23, Lee et al does not disclose the marketing models including a net present value/profitability model, a prospect pool model, a net conversion model, an attrition model, a response model, a revolver model, a balance transfer model, and a reactivation model; and the risk models including a payment behavior prediction model, a delinquency model, a bad debt model, a fraud detection model, a bankruptcy model, and a hit and run model. The Examiner previously submitted Lazarus et al as discloses predicting consumer financial behavior,

including an account statistics table for ranking prospects (see column 35, lines 49-55) and a credit risk score (see table 2). Applicant has amended to include all the marketing and risk models to be embedded within the targeting engine. The Examiner takes Official Notice that all of these types of marketing and risk models are variations that could be implemented in any marketing analysis system. Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to include specific marketing and risk models in Lee et al thereby effectively determining the specific consumer attributes of interest.

Claims 25 and 26 are rejected based upon the rejections of claims 22 and 23 respectively, since they are the system claims corresponding to the method claims.

Response to Arguments

7. In the Remarks, with respect to claims 1 and 11, Applicant argues that Lee, Lazarus, or Thearling disclose or suggest using the targeting engine to determine a sequential order for combining the models; combining the models embedded within the targeting engine in the determined sequential order to define an initial customer group including a list of customers satisfying each of the combined models and rank ordered by projected profitability wherein projected profitability is based on a probable response by a customer to the marketing campaign, attrition of the customer, and risk associated with the customer. The Examiner respectfully disagrees and submits that Lazarus et al disclose a creating plurality of predictive models based upon each merchant segment (column 4, lines 11-16). In addition,

Art Unit: 3623

Lazarus et al discloses each predictive model predicting spending in a merchant cluster over a predicted time interval, based on historic spending (column 4, lines 16-20). Further, the predictive models are specific to merchant clusters over a specific segment of the market that appears in the underlying spending data (column 4, lines 30-33). As a result, Lazarus et al discloses combining predictive models in order to determine merchant segments, wherein the models are in a sequential order based upon time interval. In addition, Lazarus et al indeed disclose a list of customers (i.e., customer accounts) ranked by their predictive spending (column 34, lines 65-67). As a result, the financial institutions are able to target a specific group of consumers (column 35, lines 32-35), which indeed includes a probable response to a marketing campaign, natural attrition, and risk.

Applicant also argues that Lee, Lazarus, or Thearling disclose or suggest an initial customer group list having a high profit end, a moderate profit section, and a low profit end, wherein the high profit end includes customers having a highest projected profitability, the low profit end includes customers having a lowest projected profitability, the moderate profit section including a profitability baseline, wherein the determined sequential order maximizes a number of customers included between the high profit end and the profitability baseline, the target group includes the customers included between the high profit end profit list and the profitability baseline. The Examiner respectfully disagrees and submits Lazarus et al as discloses consumer accounts ranked by predicted spending, based upon financial

Art Unit: 3623

profiling (i.e., marketing campaign), wherein the ranked accounts are divided into high and low ranking bins.

With respect to claims 22, 23, 25, and 26, Applicant again traverses the Official Notice and argues that the Examiner has failed to provide any support. The Examiner re-submits that Lazarus et al discloses predicting consumer financial behavior, including an account statistics table for ranking prospects (see column 35, lines 49-55) and a credit risk score (see table 2). Further, Lazarus et al discloses a targeting engine 422, consumer summary file 404, merchant segment 416, and profiling engine 412, wherein the profiling engine 412 provides account profile and analytical data (figures 4a and 4b, column 31, lines 40-44). In addition, Lazarus discloses a customer summary file 404, including a risk analysis score (table 1). As such, Lazarus provides support of various marketing and risk models, that are indeed variations of one another, as those seen in claims 22, 23, 25, and 26.

Applicant also argues that there is no suggestion to combine the references. The Examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Lee et al, Lazarus et al, and Thearling are all concerned with effective campaign management, consumer analysis and segmentation. In addition, Thearling discloses that a number of

Art Unit: 3623

techniques have been developed for manipulating data to determine a new characteristic (i.e., data mining, as seen in Lee et al), whereby the data is provided to a model builder in order to construct a model (e.g., as those models seen in Lazarus et al), in order to determine a model score, as disclosed by Thearling (see Thearling, column 1, lines 52-63 and column 2, lines 12-25). As a result, Thearling provides motivation to combine references

In addition, in response to Applicant's argument that the Examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But, as is the case here, so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

Art Unit: 3623

shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andre Boyce whose telephone number is (703) 305-1867. The examiner can normally be reached on 9:30-6pm M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tariq Hafiz can be reached on (703) 305-9643. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



adb
January 8, 2005



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